

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Address:

8125 Cobb Center Drive
Kennesaw, GA 30152

Product Information: 800-TECH-401
Customer Service: 800-645-5244

Emergency: (Chemtrek) 800-424-9300
Revision Date: October 1, 2000

Product Identification

FLUX-OFF® NO CLEAN
(Formerly Heavy Duty Flux-Off 2000)

Product Code: ES892B, ES1692, ES892BC, ES1692C

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt. % Range
Dichlorofluoroethane	1717-00-6	90.0-95.0
Denatured alcohol, a mixture of:		
Ethanol	64-17-5	1.0-5.0
Isopropanol	67-63-0	0.1-1.0
Ethyl acetate	141-78-6	0.1-1.0
Ethyl Hydroxypropionate	97-64-3	0.1-1.0
Carbon Dioxide	124-38-9	1.0-5.0

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with strong ethereal odor. This product is nonflammable. Liquid will irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapors may produce drowsiness and a headache.

Potential Health Effects:

Eyes: Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation.

Skin: Contact causes skin irritation.

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach. May cause vomiting.

Inhalation: Harmful if inhaled. High concentrations of vapors in immediate area can displace oxygen and can cause dizziness, unconsciousness, and even death with longer exposure. Keep people away from such vapors without self-contained breathing apparatus.

Pre-Existing Medical Conditions Aggravated by Exposure: Heart, lung, skin, eye.

SECTION 4: FIRST AID

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

Skin: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.

Ingestion: If swallowed, do not induce vomiting. Keep head below knees to minimize chance of aspirating material into the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: None (TCC) LEL/UEL: 7.4/15.5 (Dichlorofluoroethane % by volume in air)

Extinguishing media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Large Spills: Shut off leak if possible and safe to do so. Wear a self-contained breathing apparatus and appropriate personal protective equipment. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

Small Spills: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Do not reuse this container. Store in a cool dry place away from heat, sparks or flames. Keep container closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Guidelines:

CHEMICAL NAME	ACGIH TWA	OSHA PEL	ACGIH STEL	OTHER
Dichlorofluoroethane	NA	NA	NA	500 ppm
Denatured alcohol, a mixture of:				(Atofina)
Ethanol	1,000ppm	1000ppm	NA	
Isopropanol	400ppm	400ppm	500 ppm	
Ethyl acetate	400ppm	400ppm	NA	
Ethyl Hydroxypropionate	NA	NA	NA	

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves when handling this material.

NFPA and HMIS Codes:	NFPA	HMIS
Health	1	1
Flammability	1	1
Reactivity	0	0
Personal Protection	-	B

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<u>Physical State:</u> Clear colorless liquid	<u>Solubility in Water:</u> Negligible
<u>Odor:</u> Ethereal	<u>Specific Gravity:</u> (Water =1) 1.23
<u>pH:</u> NA	<u>Evaporation Rate:</u> >1
<u>Vapor Pressure:</u> 517 mmHg @ 70°F	(Butyl acetate=1):
<u>Vapor Density:</u> >1	<u>Viscosity:</u> 1 (Approx.)
(Air = 1)	(Water = 1)
<u>Boiling Point:</u> 90°F (Dichlorofluoroethane)	<u>Percent Volatile:</u> 100%

SECTION 10: STABILITY AND REACTIVITY

Stability: - This product is stable. Conditions to Avoid: Do not spray near open flames, red hot surfaces or other sources of ignition.
Incompatibility: Do not mix with powdered alkali and alkaline earth metals or strong oxidizing agents.
Products of Decomposition: Thermal decomposition may release carbon monoxide, carbon dioxide and incompletely burned hydrocarbons as well as hydrochloric and hydrofluoric acid vapor.
Hazardous Polymerization: Will not occur Conditions to Avoid: NA

SECTION 11: TOXICOLOGICAL INFORMATION:

<u>Inhalation:</u>			<u>Ingestion:</u>		
Dichlorofluoroethane*	LC50 rats	61,647 ppm/4hrs	Dichlorofluoroethane*	LD50 rats	>5,000 mg/kg
Ethanol	LC50 rats	20,000 ppm/10hr	Ethanol	LD50 rat	7,060 mg/kg
			Ethyl Hydroxypropionate	LD50 rat	5,000 mg/kg
<u>Eye:</u>			<u>Skin</u>		
Ethanol	rabbit	500 mg SEV	Dichlorofluoroethane	LD50 rats	>2,000 mg/kg
*Information provided by manufacturer.			Ethanol	rabbit	400 mg openMLD
<u>Cancer Information:</u> No ingredients listed as human carcinogens by NTP or IARC			Ethyl Hydroxypropionate	rabbit LD50	5,000 mg/kg
<u>Reproductive effects:</u> none			<u>Mutagenic effects:</u> none		
<u>Teratogenic effects:</u> none					

SECTION 12: ECOLOGICAL INFORMATION

Environmental Impact Information

Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

REPORTING

US regulations require reporting spills of this material that could reach any surface waters. The toll free number for the US Coast Guard National Response Center is:

1-800-424-8802

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

Proper Shipping Name	UN Number	Class	Sub. Risk	Pkg. Group	Hazard Label	Pkg. Instr.	Max. Quantity
<u>Air:</u> Aerosols, nonflammable	UN1950	2.2	NA	NA	Nonflammable Gas	203	75kg;150kg
<u>Ground:</u> Consumer Commodity	NA	ORM-D	NA	NA	ORM-D	Pkg. Auth.	173.306

SECTION 15: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

Chemical Name	CAS#	Wt. % Range
Dichlorofluoroethane	1717-00-6	90.0-95.0

This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA). All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class A; Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION:

Product is a Level 1 aerosol. Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

REFERENCES: 29 CFR 1910.1200 40 CFR 300-700 ANSI Z400.1-1998
 NIOSH RTECS provided by CHEM-BANK by SILVERPLATTER
 Guide to Occupational Exposure Values 1997

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.